DSM Workshop Proposal - Southwest Gas Corporation

R1 - Low-Income Energy Conservation	Home weatherization and consumer education for low-income customers.	Duct repair, infiltration control, attic insulation, appliance repair/replacement.	Enhanced comfort and safety, economic well-being. Joint program with other utilities/agencies.	225 homes.	1,859	393,075	$350,000
R2 - Multi-Family New Construction	Energy-efficient new construction for multi-family dwellings. Includes an educational component.	Energy-efficient appliances and building envelope, water-saving devices.	Renters are often over-looked. Saves gas, water, electricity, and emissions. Long-term impact.	1,134 units.	31,957	8,455,331	$800,000
I1 - Technology Information Center	Energy efficiency information for industrial/commercial customers.	Information via website, electronic library, newsletters, and telephone hotline.	Saves gas, water, electricity, and emissions. Identify DSM possibilities for commercial/industrial.	12,400 customers.	n/a	n/a	$35,000
Measurement and Verification	R1 - Blower door tests, on-site inspections, cost-effectiveness monitored by the Arizona Energy Office. R2 - Number of participants, customer surveys, number of seminars, types/quantity of information distributed. I1 - Number of hits on website, topics viewed, number of calls to hotline, number of newsletters distributed, customer feedback.						Included above.
				13,759	**33,816**	**8,848,406**	**$1,185,000**

TABLE 1
SOUTHWEST GAS CORPORATION
PROPOSED DSM PORTFOLIO
LOW-INCOME ENERGY CONSERVATION, MULTI-FAMILY NEW CONSTRUCTION AND TECHNOLOGY INFORMATION CENTER
TOTAL ENERGY (mmBtu)

Description	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
UTILITY SYSTEM DATA										
Retail Sales (mmBtu) [1]	291,462,601	299,151,372	307,024,685	315,114,749	323,389,831	331,839,691	340,530,479	349,433,987	359,030,725	368,897,639
PROGRAM DATA										
Annual Budget ($)	$1,185,000	$1,185,000	$1,185,000	$1,185,000	$1,185,000	$1,185,000	$1,185,000	$1,185,000	$1,185,000	$1,185,000
Participants	13,759	13,755	13,755	13,755	13,755	13,755	13,755	13,755	13,755	13,755
ESTIMATED ENERGY SAVINGS										
Annual Energy Savings [2]										
Energy (mmBtu)	33,817	33,704	33,704	33,704	33,704	33,704	33,704	33,704	33,704	33,704
Water (gallons) [3]	8,848,406	8,818,581	8,818,581	8,818,581	8,818,581	8,818,581	8,818,581	8,818,581	8,818,581	8,818,581
Annual Energy Savings as % of Retail Sales										
Energy (mmBtu)	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
Cumulative Annual Effect										
Energy (mmBtu)	33,817	67,520	101,224	134,928	168,632	202,336	236,039	269,743	303,447	337,151
Water (gallons) [3]	8,848,406	17,666,987	26,485,568	35,304,149	44,122,730	52,941,311	61,759,892	70,578,473	79,397,054	88,215,635
Cumulative Energy Savings as % of Retail Sales										
Energy (mmBtu)	0.01%	0.02%	0.03%	0.04%	0.05%	0.06%	0.07%	0.08%	0.08%	0.09%
Lifetime Energy Savings (10 years)										
Energy (mmBtu)	338,165	675,204	1,012,242	1,349,280	1,686,318	2,023,356	2,360,394	2,697,433	3,034,471	3,371,509
Water (gallons) [3]	88,484,058	176,669,868	264,855,678	353,041,488	441,227,298	529,413,108	617,598,918	705,784,728	793,970,538	882,156,348

Assumptions:

[1] Combined retail sales (DTh and MWh were converted to mmBtus) for SWG, APS, TEP, and SRP are shown above. A 3% escalation rate was used to forecast beyond the 2005 sales projections provided by APS and TEP in prior DSM workshop documents. The same 3% escalation was used to forecast SRP's sales from 2002 forward.

[2] Estimated energy savings shown above are for the Low-Income Energy Conservation program and the Multi-family program combined.

[3] In addition to the program specific water savings, an average of 0.5 gallons per kWh was used in estimating total water savings. The SWEEP report states the typical new coal-fired power plant consumes about 0.67 gallons of water per kWh and the gas-fired about 0.33 gallons per kWh.

DEMAND SIDE MANAGEMENT PROGRAM RECOMMENDATIONS

Presented at
The Arizona Corporation Commission
Demand Side Management Workshop

February 13, 2004

By
Southwest Gas Corporation
Research/Conservation & Demand Side Management Department

OVERVIEW

At the Arizona Corporation Commission (ACC or Commission) Demand Side Management (DSM) Workshop held on October 30, 2003, the ACC requested that the utilities provide recommendations for the three best DSM opportunities in each of three customer classes: Residential, Commercial, and Industrial. Southwest Gas Corporation (Southwest) respectfully submits its program recommendations in the following table. Southwest is also submitting a brief description of each program.

DSM PROGRAM RECOMMENDATIONS		
Residential	**Commercial**	**Industrial**
R1* - Low-Income Energy Conservation	C1* - Food Service Equipment	I1* – Technology Information Center
R2* - Multi-Family New Construction	C2 - High-Efficiency Laundries	I2 – Distributed Generation
R3* - High-Efficiency Appliances in Retail Stores	C3 - Efficient Building Design	I3 – Irrigation Pumping
R4 - Single-Family New Construction		
*Top five programs		

Southwest notes that its currently approved DSM budget is $1.25 million annually. With that amount, Southwest now conducts two programs: 1) Low-Income Energy Conservation ($350,000); and 2) Energy Advantage Plus, a single-family new construction program conducted in the Tucson area ($900,000). With its existing Commission-approved DSM funding level, Southwest suggests implementing three programs in the future: 1) R1 – Low-Income Energy Conservation ($350,000); 2) R2 – Multi-Family New Construction ($800,000); and 3) I1 – Technology Information Center ($35,000), for a total of $1,185,000. If the ACC determines that Southwest should pursue some or all of the programs listed above, Southwest will provide more detailed cost-effectiveness analyses and implementation plans.

RESIDENTIAL

R1 - Low-Income Energy Conservation

The Low-Income Energy Conservation program is aimed at low-income customers who require weatherization for their homes and/or rate assistance for their utility bills. Customers with a household income up to 125% of the poverty guidelines established by the federal Office of Management and Budget qualify for assistance. Those customers who are elderly (age 60 and over) or handicapped may have an income of up to 150% of the federal poverty level.

This program is currently conducted by Southwest, in conjunction with the Arizona Department of Commerce Energy Office, community action agencies, and other Arizona utilities. The program includes both home weatherization and consumer education, in order to cost-effectively reduce energy usage in income-qualified residences.

R2 – Multi-Family New Construction

This DSM program is designed for renters—a group that is often overlooked by DSM programs, but which has a significant potential for energy savings. Due to their generally lower economic status, renters are likely to have an even greater need for cost savings on their utility bills than single-family homeowners. In order to serve this group, the program will focus on the designers and developers of multi-family new construction in Maricopa and Pima Counties.

The purpose of the program is to provide energy-efficient housing in the multi-family sector. The program will require building standards that exceed existing building codes. Both the building envelope and the appliances will be upgraded. The program will also include an educational component, in order to increase the awareness of energy efficiency among consumers, builders, and designers.

R3 – High-Efficiency Appliances in Retail Stores

This program is aimed at consumers who purchase either new or replacement equipment at retail stores. The goal is to increase both the awareness, and purchase, of more efficient home appliances.

The program will feature a partnership between the utility and the retail sectors. It will focus on building consumer awareness by providing educational materials at the point of purchase and on increasing the availability of high-efficiency equipment in the stores.

R4 - Single-Family New Construction

The purpose of this DSM program is to provide energy-efficient housing for homeowners and to continue to transform the new construction market to higher efficiency levels.

This program would be educational in nature. It would be designed to increase the awareness of energy efficiency. It would also promote the proper installation of such items as insulation, windows, and HVAC systems. The education would be completed through training sessions for builders, subcontractors, and sales agents.

COMMERCIAL

C1 – Food Service Equipment

This program is designed for commercial food service customers.

The purpose of this program is to increase the utilization of high-efficiency cooking equipment in the thousands of restaurants and commercial food service facilities throughout Arizona. It is estimated that there are approximately 10,000 sites that could potentially benefit from the program.

The program is designed to educate food service managers about high-efficiency equipment and to influence their purchase decisions. In addition to providing informational material and technical guides, Southwest will utilize its existing Food Service Center (Center) in Tempe as a training facility to demonstrate the latest, most efficient equipment that is available in the market. This program will also include a partnership between the Center and Arizona water agencies. The partners will distribute free, low-flow, dish rinse wands that have been proven to save both water and energy.

C2 - High-Efficiency Laundries

This program is aimed at commercial laundry facilities where large volumes of linens and clothing are washed and dried on a daily basis. The laundering process is both water- and energy-intensive, and represents an area for significant resource savings.

The program would encourage the installation of high-efficiency clothes washers and dryers, in order to conserve both water and energy. Program representatives would meet with laundry owners and facility managers to help them determine the types of equipment that would best meet their performance and efficiency needs.

C3 - Efficient Building Design

This program targets architects, engineers, designers, and builders of new commercial construction projects, for the purpose of improving the energy efficiency of commercial buildings.

The program involves providing information and continuing education to the building and design community, in order to encourage more energy-efficient new construction in the commercial sector. Educational materials and workshops would be developed and presented.

INDUSTRIAL

I1 – Technology Information Center

This program is targeted primarily at industrial customers, but is also appropriate for commercial customers.

The program is designed to provide technical information to industrial and commercial customers, in order to reduce energy usage, lower utility bills, answer questions about energy-efficient technologies, and increase awareness of environmental issues.

The program will provide information through various formats, including an Internet resource website, an "Ask an Expert" hotline, newsletters, and an electronic research library. Customer interest in various topics will be tracked, for use in tailoring future DSM programs to meet the needs of industrial/commercial customers.

I2 – Distributed Generation

This program is intended for a variety of industrial customers, depending on the distributed generation application. Program participants could range from small to large industrial customers. The program's advantages include higher efficiency, reduced emissions, cost savings, peak-shaving, power reliability, and risk management.

The program would encourage the installation of such technologies as cogeneration, fuel cells, and microturbines. An educational component is essential to this program, in order to increase awareness and acceptance for this technology in the industrial community. The program would also call for a partnership between the natural gas/electric utilities and the ACC to facilitate the adoption of this technology.

I3 – Irrigation Pumping

The intent of this program is to provide high-efficiency irrigation pumping, primarily for agricultural customers and other engine-driven applications. This program has the added benefit of reducing peak power demand.

The program would encourage the use of high-efficiency, engine-driven irrigation pumping. Because irrigation pumping often occurs during peak load hours, this DSM program has the potential to significantly decrease electric demand.

SWEEP - DSM Workshop - Proposed Energy Efficiency Portfolio					DRAFT: Not for Publication/Citation							February 13, 2004	
Proposal for the APS Service Territory													
DSM SPENDING	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**TOTAL**
Total DSM Spending ($,000)	$13,477	$30,265	$41,111	$42,288	$43,421	$44,528	$45,680	$46,878	$48,124	$49,447	$50,823	$52,255	**$508,297**
Existing & New Residential/Low Income													
Commercial/Industrial/Institutional													
Expenditure Impact on Rates (%)													
ENERGY/DEMAND SAVINGS													
Cumulative Annual Effect (MW)	14.5	47.0	92.0	145.9	211.7	287.8	366.9	449.1	534.6	620.6	710.1	803.1	**803.1**
Annual Peak Demand Savings (MW)	14.5	32.5	45.1	53.9	65.8	76.0	79.1	82.2	85.5	86.0	89.4	93.0	
Existing & New Residential/Low Income													
Commercial/Industrial/Institutional													
Cumulative Annual Effect (GWh: 000 MWh)	90	292	571	906	1,315	1,787	2,278	2,788	3,319	3,853	4,408	4,986	**4,986**
Cumulative Effect (% of Base Case Sales)	0.4%	1.1%	2.0%	3.1%	4.3%	5.7%	**7.0%**	8.2%	9.4%	10.5%	11.5%	**12.5%**	
Annual Energy Savings (GWh)	90	202	280	335	409	472	491	511	531	534	555	577	
Existing & New Residential/Low Income	29	64	89	107	130	151	157	163	169	170	177	184	
Commercial/Industrial/Institutional	61	137	191	228	278	321	334	348	362	364	378	393	
Lifetime Energy Savings (GWh)	1,078	2,421	3,357	4,015	4,902	5,665	5,892	6,127	6,372	6,406	6,663	6,929	**59,829**
COST EFFECTIVENESS													***Average***
Spending per KW peak savings ($/kW)	931	931	912	785	660	586	578	570	563	575	568	562	685
Spending per annual kWh savings ($/kWh)	0.1500	0.1500	0.1469	0.1264	0.1063	0.0943	0.0930	0.0918	0.0906	0.0926	0.0915	0.0905	0.1020
Spending per lifetime kWh savings ($/kWh)	0.0125	0.0125	0.0122	0.0105	0.0089	0.0079	0.0078	0.0077	0.0076	0.0077	0.0076	0.0075	0.0085
Base Case Retail Energy Sales (GWh)	25,670	26,902	27,978	29,097	30,261	31,472	32,731	34,040	35,401	36,817	38,290	39,822	
Annual Growth Rate (%)	4.8%	4.8%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
Revised Retail Energy Sales (GWh)	25,580	26,611	27,407	28,191	28,947	29,685	30,453	31,252	32,082	32,964	33,882	34,836	
Revised Annual Growth Rate (%)	4.4%	4.0%	3.0%	2.9%	2.7%	2.6%	2.6%	2.6%	2.7%	2.7%	2.8%	2.8%	
Assumptions:													
Energy Forecast	Based on APS Schedules E-7 and F-4, APS Rate Case												
Annual Growth Rate (%)	4.0%	for 2006-2020; 4.8% for 2003-2005 per Schedule F-4											
Energy Efficiency Funding Rate	$0.0015	/kWh of retail energy sales											

Energy Efficiency Programs for Arizona DSM

December 5, 2003 (revised February 13, 2004)

Below is a list of high-priority, effective, and cost-effective energy efficiency programs the utilities should offer to their customers.

The programs are organized by consumer markets and distribution channels, to leverage existing activities and opportunities in markets. The mix (portfolio) of programs ensures that all customers have an opportunity to participate in and benefit directly from at least one energy efficiency program.

Residential

Low/Moderate/Fixed Income

Targeted primarily to low/moderate income and fixed income households. Install lighting, appliances (refrigerators), and cooling measures to reduce electricity use. Partnership with and support for low income weatherization programs.

Residential New Construction

Promotion of Energy Star homes, builder and contractor training, energy efficient HVAC systems approach (not just equipment), and targeted financial incentives. Include an effective building performance/systems approach to cooling in new homes, and promotion of lighting and appliances. Reduce summer utility peak demand by about 2.0 kW per home.

Consumer Products

Strong link to and support for Energy Star products. Promotion and targeted financial incentives for lighting, appliances, and other consumer products (windows).

Existing Residential, with Focus on Residential Cooling/HVAC

Central system replacements (air conditioners and heat pumps), delivered by HVAC contractors and dealers. Phase this in after the Residential New Construction cooling system element (systems approach) and HVAC contractor training are implemented. Also, encourage energy efficiency measures during remodeling, renovation, or retrofit of existing residential buildings.

Commercial, Industrial, & Other Non-Residential

Non-Residential (C&I) New Construction, Renovation, and Equipment Replacement
Design assistance for customers and the design community. Prescriptive and custom paths for energy-efficiency measures, including lighting, HVAC, motors/drives, and processes/systems. Financial incentives to encourage and leverage customer investment.

Non-Residential (C&I) Existing Buildings
Generally for large/medium existing customers, including lighting, HVAC, motors/drives, industrial processes, compressed air, and pumping systems. Prescriptive and custom paths for energy-efficiency measures. Include retro-commissioning. Financial incentives to encourage and leverage customer investment.

Note: custom approaches that consider unique site situations are most effective in industrial facilities.

Small Business
Provide technical assistance. Use a combination of a financial incentive and pay-as-you-go, on-the-bill financing (with financing capital from utility capital) to promote lighting, HVAC, and refrigeration measures.

Schools and Local Government
Provide technical assistance and building operator training. Use a combination of a financial incentive and pay-as-you-go, on-the-bill financing (with financing capital from the utility).

RESPONSE BY
MORENCI WATER & ELECTRIC
TO A REQUEST FOR RECOMMENDATIONS
FOR DEMAND SIDE MANAGEMENT PROGRAMS FROM
THE ARIZONA CORPORATION COMMISSION

February 10, 2004

Morenci Water & Electric (MW&E) is pleased to provide the following in response to a request by staff of the Arizona Corporation Commission in its January 15, 2004 workshop regarding Demand Side Management (DSM) programs.

MW&E is a private water and power utility under the jurisdiction of the ACC, operating in Graham County, Arizona. MW&E provides power to the residents and businesses in the towns of Clifton and Morenci. Representatives of MW&E have been active in the previous and the present DSM proceedings including the current DSM Workshop process sponsored by the ACC. MW&E has knowledge regarding past and present DSM programs offered by utilities throughout Arizona and other states. The following information indicates MW&E's position regarding the most effective and efficient means to bring about demand and consumption reductions through conservation.

BACKGROUND

- MW&E agrees that energy conservation can deliver value to individual consumers, the environment, and the overall Arizona electricity market.
- MW&E believes that conservation is best achieved through a portfolio of energy efficiency initiatives and that a prioritized application of conservation measures (read: most efficient options first) makes the best public policy.
- MW&E strongly believes that the pricing realities of the wholesale market should translate into retail rate design and that technology-oriented DSM programs (i.e. efficiency upgrades, etc) are most productive when applied to rate structures signal the consumer about the wholesale market costs that drive their rates.
- MW&E believes therefore that the most efficient implementation of DSM starts with appropriate pricing signals from the market to the meter.
- Based on the foundation of electric rates that send proper price signals, MW&E believes that informed consumer choices regarding building design and equipment are crucial to growing and sustaining energy conservation.

Time of Use (TOU) Rates

MW&E has been preparing to make a general rate application to the ACC in 2004. As part of that application MW&E will include a voluntary rate that will incorporate TOU pricing. The proposed rate will aim at aligning the cost of wholesale power for off-peak, on-peak, and possibly shoulder peak, periods with retail residential rates. MW&E considers this approach as reasonable and appropriate for the following reasons:

- Customers do respond to price by altering their consumption patterns.
- Proper rate design that influences consumption behavior is a relatively low cost source of DSM.
- Effectively structured TOU rates are fair to ratepayers. Traditional DSM programs funded by ratepayer dollars through systems benefit or public goods charges, while designed for equal access to all who contribute to the funding, do not result in equalized benefit.
- Investments in TOU metering can be recovered through the cost savings generated by effective adjustments in consumption.

Efficiency Standards

MW&E believes that in conjunction with rates that send the proper price signals, consumers should be directed toward energy efficient designs and technologies through education about energy efficiency standards and technologies. Energy efficient design and equipment selection, though sometimes higher first cost investments, consistently save more than their cost many times over. For the following reasons, MW&E recommends continuing existing customer education programs that provide consumer education regarding Life Cycle Cost (LCC) analysis, energy efficient design alternatives, and efficient equipment and appliance choices to achieve conservation:

- Consumer education is a relatively low cost source of DSM
- An LCC approach to building envelope, HVAC and lighting, process, and appliance selection offers the greatest opportunity for conservation on new and retrofit applications.
- As energy efficiency standards and technologies improve over time, continued and updated education will keep consumers current on their available options

Final Comments

MW&E believes that the above recommendations can achieve results at least as quickly as technology-specific programs due to the relative simplicity of our recommended approach and the limited lead time required for implementation

LightLogix™ Voltage Control:

A Simple Option for Commercial Lighting DSM

Prepared by:
Chris Arthur
AZ CC DSM Workshop, February 13, 2004

- *About Our Company*
  - 32-year old company based in Wilmington, NC
  - LightLogix division/product now ~5 years old
- *About the Technology*
  - LightLogix is UL-listed, patented, customizable voltage control for commercial lighting (HID, fluorescent) – normal customers are parking garages, distribution centers, larger retail centers with long hours
  - Typically done as a retrofit; also works for new construction
  - Non-intrusive 1-2 day installation between MDP/lighting panel with <1hr outage

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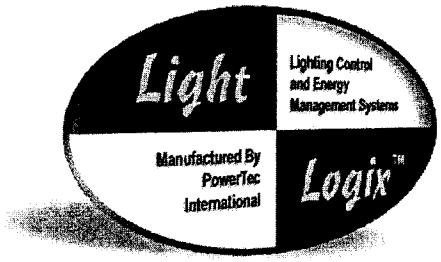
- ***Demand Reductions/Return on Investments***
  - **For each $1MM worth of LightLogix:**
    - 55 units installed
    - **1.1MW total lighting load reduction (20kW average per unit, figured on 20% reduction)**
      - Additional difficult-to-quantify load reductions on cooling due to lower heat from lights
    - **9650MW-Hr yearly consumption reduced**
    - **$575,000 yearly savings, 1.7 year ROI based on $0.06/kW-Hr**



- ***Recent LightLogix Projects of Note***
  - **City of Long Beach, Los Angeles DOT**
    - Parking Garages
  - **New York Power Authority**
    - Calendar number recently assigned in NYC
    - Signed contract, moving toward application in public transportation depots, schools
  - **Kohl's Department Stores**
    - Retail stores
  - **Many others scattered throughout the US including State of Michigan, University of Central Florida, Richmond International Airport**

- ***Capability/Features***
  - Hands-off operation
  - 25- to 30-year expected operating life (~15-20x payback)
  - **Voltage reduction levels fully programmable as needed for high-demand times**
  - **Option for remote monitoring and real-time curtailment from central location**

- **For details, contact:**
  - Website: **http://www.lightlogix.com**
  - **Chris Arthur (local)**
    - **(602) 614-4575 voice**
    - **carthur@lightlogix.com email**
  - **Headquarters (Lacy Henry, president)**
    - **(877) 394-7301**

DSM Workshop - Proposed DSM Portfolio (COMPANY/ORG NAME)												
DSM SPENDING	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Total DSM Spending ($,000)	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	**$11,000**
Existing Residential/Low Income	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Residential New Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Commercial/Industrial/Institutional	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$11,000
Expenditure Impact on Rates (%)												
ENERGY/DEMAND SAVINGS												
Cumulative Annual Effect (mW)	1.1	2.2	3.3	4.4	5.5	6.6	7.7	8.8	9.9	11.0	12.1	**12.1**
Annual Peak Demand Savings (mW)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Existing Residential/Low Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residential New Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial/Industrial/Institutional	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Cumulative Annual Effect (mWh)	9,650	19,300	28,950	38,600	48,250	57,900	67,550	77,200	86,850	96,500	106,150	**106,150**
Annual Energy Savings (mWh)	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	
Existing Residential/Low Income	0	0	0	0	0	0	0	0	0	0	0	
Residential New Construction	0	0	0	0	0	0	0	0	0	0	0	
Commercial/Industrial/Institutional	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	
Lifetime Energy Savings (mWh)												
COST EFFECTIVENESS												*Average*
Spending per KW peak savings ($/kW)	909	909	909	909	909	909	909	909	909	909	909	909
Spending per annual kWh savings ($/kWh)	0	0	0	0	0	0	0	0	0	0	0	0
Spending per lifetime kWh savings ($/kWh)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

DSM Workshop Proposal (COMPANY/ORG NAME) - Commercial/Industrial/Institutional Segment

Program Name	Description	DSM Measures	Other Considerations (Feasibility, market share, MT effect)	Participants (est #/yr)	Est Annual Savings (MW)	Est Annual Savings (MWH)	Est Annual Spending ($,000)
LightLogix (example here is for $1MM spent)	Automated Lighting Voltage Controller	Voltage reduction at commercial lighting panels reduces lighting energy consumption from 20-40% -- also, heat reduction from lighting aids with cooling	Market Share: larger commercial businesses with heavy/long lighting usage (parking garages, distribution center, 24-hour retail centers, etc.)	**55** ($1MM expenditure, assumes each business gets one unit)	**1.1** (based on $1MM expenditure)	**9,650**	one time purchase ($1MM), each additional $1MM spent is a multiplier to these figures
Measurement and Verification	*Describe M&V Plans Here for C&I Segment. Show the annual cost in column H.*						
			TOTAL	**55**	**1.1**	**9,650**	**$1,000**